PATENT

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12/13/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Min LI

Serial No. 09/726,624

Filed: November 30, 2000

Attorney Docket No. 01107.00063

Group Art Unit: 1639

Examiner: P. Ponnaluri

For: METHOD OF DETECTION UTILIZING MODIFIED BACTERIOPHAGE

RESPONSE TO RESTRICTION REQUIREMENT

Assistant Commissioner of Patents and Trademarks
Washington, D.C. 20231

Dear Sir:

In response to the Office Action mailed November 7, 2002, applicants elect as species: GFP as a fluorescent protein and NMDA receptor as a cellular protein. We believe that no fee is due in connection with this election. If a fee is due, please charge or credit Deposit Account No. 19-0733.

The previous Office Action required election of a single species for each of the following: a) cells *in vivo* or in culture, b) a tag or label associated with the virus, c) a cellular receptor protein or a cellular channel protein, and d) sequence of ligand. Applicants elected and/or now elect: cells *in vivo*, green fluorescent protein, NMDA receptor protein, and Mag-4.1. The following table identifies the claims that read on the elected species.

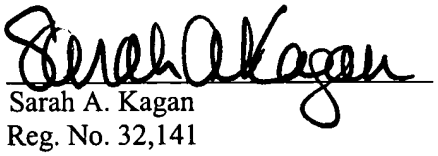
Claim		***In vivo***	**Green fluorescent protein**	**NMDA receptor protein**	**Mag-4.1** (SEQ ID NO:2)
1	A method of detecting the presence of a **polypeptide** in a **sample** comprising contacting the sample with a **detectable virus** expressing on its surface a **ligand** for the polypeptide and detecting binding of the virus to the sample, thus detecting the presence of the polypeptide in the sample.		X	X	X
5	A method of detecting the presence of a selected **polypeptide** in a **sample** comprising contacting the sample with a **detectable virus**		X	X	X

	expressing on its surface a **ligand** previously demonstrated to specifically bind the selected polypeptide and detecting binding of the virus to the sample, thus detecting the presence of the selected polypeptide in the sample.				
9	A method of detecting the presence of a selected **cellular protein** on the surface of a cell comprising contacting the cell with a **detectable virus** expressing on its surface a **ligand** previously demonstrated to specifically bind the selected cellular protein and detecting binding of the virus to the cell, thus detecting the presence of the selected cellular protein on the surface of the cell.	X	X	X	X
17	A method of detecting the presence of a selected **polypeptide** in a **sample** comprising contacting the sample with a **detectable bacteriophage** expressing on its surface at least 10 copies of a **ligand** for the selected polypeptide and detecting binding of the bacteriophage to the sample, thus detecting the presence of the selected polypeptide in the sample.		X	X	X
22	A method of detecting the presence of a selected **cellular protein** on the surface of a cell comprising contacting the cell with a **detectable bacteriophage** expressing on its surface a at least 10 copies of a **ligand** for the selected cellular protein and detecting binding of the bacteriophage to the cell, thus detecting the presence of the selected cellular protein on the surface of the cell.	X	X	X	X
45	The method of claim 1, wherein the virus is a **bacteriophage**.		X	X	X
46	The method of claim 1, wherein the polypeptide is a **cellular protein**.		X	X	X
47	The method of claim 1, wherein the sample is a clinical sample.		X	X	X
48	The method of claim 5, wherein the virus is a **bacteriophage**.		X	X	X
49	The method of claim 5, wherein the polypeptide is a **cellular protein**		X	X	X
50	The method of claim 5, wherein the sample is a clinical sample.		X	X	X
51	The method of claim 9, wherein the virus is a **bacteriophage**.	X	X	X	X
52	The method of claim 9 wherein the sample is a clinical sample.		X	X	X
53	The method of claim 9, wherein the **cellular protein** is a **receptor** or **channel protein**.	X	X	X	X

54	The method of claim 9, wherein the cellular protein is **N-methyl D-aspartate receptor**.	X	X	X	X
55	The method of claim 9, wherein the cells are in **culture**.		X	X	X
56	The method of claim 9, wherein the cells are ***in vivo***.	X	X	X	X
57	The method of claim 9, wherein the **ligand** expressed on the surface of the virus is selected from the group consisting of the peptide whose amino acid sequence is set forth as **SEQ ID NO:2** and the peptide whose amino acid sequence is set forth as SEQ ID NO:3.	X	X	X	X
58	The method of claim 17, wherein the bacteriophage expresses on its surface at least 100 copies of the **ligand**.		X	X	X
59	The method of claim 17, wherein the bacteriophage expresses on its surface at least 400 copies of the **ligand**.		X	X	X
60	The method of claim 17, wherein the **polypeptide** is a **cellular protein**.		X	X	X
61	The method of claim 17, wherein the sample is a clinical sample.		X	X	X
62	The method of claim 22, wherein the bacteriophage expresses on its surface at least 100 copies of the **ligand**.	X	X	X	X
63	The method of claim 22, wherein the bacteriophage expresses on its surface at least 400 copies of the **ligand**.	X	X	X	X
64	The method of claim 22 wherein the sample is a clinical sample.		X	X	X
65	The method of claim 22, wherein the **cellular protein** is a **receptor** or **channel protein**.	X	X	X	X
66	The method of claim 22, wherein the **cellular protein** is **N-methyl D-aspartate receptor**.	X	X	X	X
67	The method of claim 22, wherein the cells are in **culture**		X	X	X
68	The method of claim 22, wherein the cells are ***in vivo***.	X	X	X	X
69	The method of claim 22, wherein the **ligand** expressed on the surface of the virus is selected from the group consisting of the peptide whose amino acid sequence is set forth as **SEQ ID NO:2** and the peptide whose amino acid sequence is set forth as SEQ ID NO:3.	X	X	X	X

As shown in the table above, claims 9, 22, 51, 53-54, 56-57, 62-63, 65-66 and 68-69 read on *in vivo* embodiments. All pending claims, *i.e.,* claims 1, 5, 9, 17, 22, 45-69, read on use of green fluorescent protein. All pending claims read on use of an NMDA receptor protein. All pending claims read on use of the Mag-4.1 amino acid sequence. Therefore, claims 9, 22, 51, 53-54, 56-57, 62-63 and 65-69 read on all four elected species.

Respectfully submitted,

Date: December 9, 2002 By: 

Sarah A. Kagan
Reg. No. 32,141

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